Size: 706 acres
Mission: Manufacture aircraft and associated equipment
HRS Score: 39.92; placed on NPL in August 1990
IAG Status: IAG signed in 1990
Contaminants: Solvents, paint residues, spent process chemicals, PCBs, waste oils and fuels, heavy metals, VOCs, and cyanide
Media Affected: Groundwater, surface water, sediment, and soil
Funding to Date: $48.1 million
Estimated Cost to Completion (Completion Year): $41.4 million (FY2013)
Final Remedy in Place or Response Complete Date for All Sites: FY2000

Fort Worth, Texas

Restoration Background

Air Force Plant No. 4 has served as a primary manufacturer of military aircraft and associated equipment since 1942. Since FY84, studies have identified 30 sites and confirmed groundwater, surface water, and soil contamination. Trichloroethene (TCE) was detected in groundwater beneath six spill sites and four landfills. Groundwater is the primary drinking water source for the city of White Settlement.

A Remedial Investigation and Feasibility Study (RI/FS) began in FY88 and was completed in FY95 with the preparation of the Ecological Risk Assessment. During the RI, 8 of the 30 sites were recommended for no further action. Two Interim Remedial Actions (IRAs) initiated in FY93 included installation of an interim groundwater treatment system to address contamination from two spill sites. In FY94, the installation completed the design and construction of a soil vapor extraction (SVE) system at Building 181, the parts processing plant. Two additional carbon filtration groundwater treatment systems were installed to control the further migration of TCE. The installation also began constructing a vacuum-enhanced pumping system to treat groundwater and soil contamination at Landfill No. 3. The installation undertook the expansion of several treatment systems associated with the large TCE plume. Additional extraction wells were installed at one pump-and-treat system to prevent TCE migration. The SVE pilot plant at Building 181 was expanded to a large-scale, dual-phase SVE system that will treat both groundwater and soil vapors.

In FY96, a Record of Decision (ROD) was signed by the Texas Natural Resource Conservation Committee (TNRCC), the Air Force, and EPA, which proposed actions at the remaining two sites, including groundwater pumping and treatment, enhanced pumping and treatment using surfactants, and SVE. A Memorandum of Agreement was signed by the Air Staff, the Air Force Center for Environmental Excellence (AFCEE), the Air Force Base Conversion Agency, and Headquarters Air Force to integrate the restoration programs for the Carswell Field sites and the Air Force Plant No. 4 groundwater plume. The installation conducts monthly meetings with representatives of EPA, TNRCC, the U.S. Army Corps of Engineers, AFCEE, and the U.S. Geological Survey. In FY97, the installation completed a long-term monitoring plan and a Remedial Design (RD) work plan.

In FY95, the installation converted its technical review committee to a Restoration Advisory Board (RAB). In FY96, the RAB was integrated with the Carswell RAB, and meetings are now held quarterly at JRB Naval Air Station, Fort Worth. In FY97, the RAB sponsored an Earth Day fair to generate community interest.

FY98 Restoration Progress

An emergency plume containment action and a Focused Feasibility Study were initiated at the leading edge of the TCE plume on Carswell field. Tracer testing was used to identify potential areas of source contamination (TCE). Because of the expense of tracer testing and the equally great expense of cleanup with surfactants, the installation is considering dewatering the site and using enhanced SVE on the remaining soil contamination.

The TNRCC, the Texas General Land Office, Texas Parks and Wildlife, the Department of the Interior, and the Air Force are negotiating a MOA in an attempt to integrate the Natural Resource Damage Assessment (NRDA) into the restoration program.

Funding for the surfactant-enhanced Remedial Action (RA) was delayed until FY99 due to delayed confirmation of the source contamination. Complications in fieldwork and the complexity of the groundwater modeling delayed the 60 and 90 percent RD of the pump-and-treat system in the East Parking Lot and the associated RD report.

The RAB participated in the Carswell Air Show, where restoration activities were highlighted.

Plan of Action

- Complete an RA Plan in FY99
- Complete all RD reports in FY99
- Fund and put in place all final RAs by FY00

FY99 Funding by Phase and Relative Risk